Catalogue of American Amphibians and Reptiles.

MINTON, SHERMAN A. 1980. *Thamnophis butleri.*

Thamnophis butleri (Cope)
Butler's garter snake

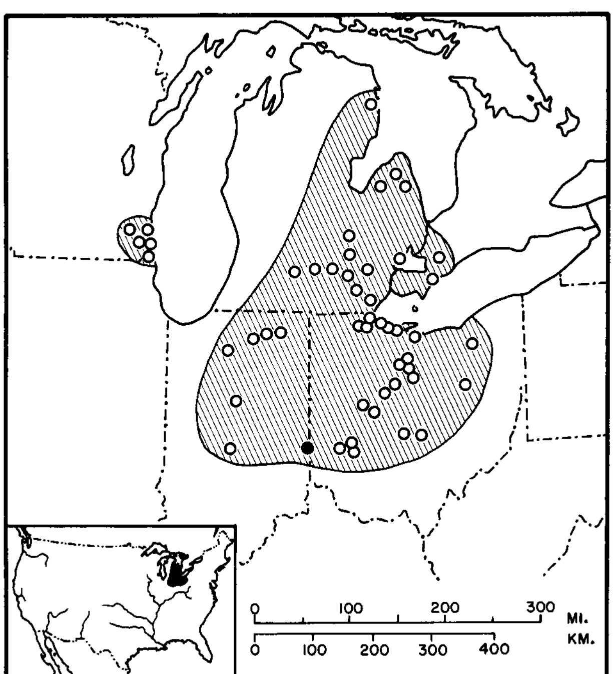
Eutaenia butleri Cope, 1889:399. Type-locality, "Richmond, Ind[iana]." Holotype, Purdue University 264 (now lost), collector unknown, no date of collection. See COMMENT.
Tropidonotus ordinatus var. *butleri*: Boulenger, 1893:212.
Thamnophis butleri: Stejneger, 1895:593.
Tropidonotus butleri: Boulenger, 1896:602.
Eutaenia brachystoma: Clark, 1903: 83 (in part).
Eutaenia sirtalis obscura: Morse, 1904: 134 (in part).
T[hamnophis]. radix butleri: Blanchard, 1925:18.

• CONTENT. The species is monotypic.

• DEFINITION. A small garter snake (40-70 cm total length) with a proportionally small head. Dorsal scale rows 19–17. Supralabials normally 7, occasionally 6, rarely 8. Ventrals 130–154; subcaudals in males 60–72, in females 49–64. Ground color chestnut to black with lighter individuals showing dark spots. Three distinct, yellow stripes, the laterals mostly on the second and third scale rows but involving the lower half of the fourth scale row, at least anteriorly. Labial sutures without dark borders. Belly yellowish green to straw, sometimes with small dark spots on lateral tips of ventrals.

• DESCRIPTIONS. Stejneger (1895) supported Cope's (1899) assignment of specific status to *butleri* and described an additional specimen. Ruthven (1904) provided the first adequate description of the species based on examination of 20 specimens from 3 states. This description was expanded in a subsequent monograph (Ruthven, 1908). Davis (1932) analyzed variation in the disjunct Wisconsin population. Conant (1938) provided a description based on a large Ohio sample.

• ILLUSTRATIONS. Cope (1900) figured the head and midbody scalation. Black and white photographs of the species are in Ditmars (1908), Conant (1938), and Minton (1972). Color illustrations appear in Conant (1975) and Dickinson (1949).



MAP. Solid spot marks the type-locality, circles indicate other localities, shaded area estimates total range.

• DISTRIBUTION. The northwestern two-thirds of Ohio, extreme southern Ontario, eastern Michigan, and northeastern Indiana; an isolated population in southeastern Wisconsin. Occurrence is decidedly spotty. Colonies tend to be in moist, open, grassy situations. Several recent records are from urban or suburban localities. Conant et al. (1945) and Smith and Minton (1957) considered *butleri* an early post-Pleistocene invader of the southern Great Lakes region whose distribution is now relictual.

• FOSSIL RECORD. None.

• PERTINENT LITERATURE. Habitats, geographic distribution, and affinities of the species were duscussed by Ruthven (1908). Carpenter (1952a) reported on food, habits, movements, breeding potential and other aspects of biology as compared with two other sympatric species of *Thamnophis*. In subsequent papers (Carpenter 1952b, 1953, 1956), he described growth, hibernacula, and thermoregulation. Finneran (1949) and Ruthven (1912) gave accounts of sexual behavior, and Ruthven (1915) discussed the gestation period. Regional accounts dealing with the biology of *butleri* include Ruthven et al. (1928) for Michigan, Logier (1939) for Ontario, Conant (1938) for Ohio, and Minton (1972) for Indiana. General accounts include Pope (1944) and Wright and Wright (1957). A recent distribution map is in Conant (1975). Smith (1945b) reported a one-eyed individual. Test (1958) discussed food habits. Burghardt (1967) investigated chemical sense aspects of feeding.

• NOMENCLATURAL HISTORY. Because of the few available specimens, Boulenger (1893) and Brown (1901) considered *butleri* a variety of the widely distributed *sirtalis*. In his monograph of the garter snakes, Ruthven (1908) supported the specific status of *butleri*. Blanchard (1925) considered *butleri* a subspecies of *radix* without giving a reason. Smith (1945a) separated *butleri* from *brachystoma* and proposed species status for both. However, in a later paper (Smith, 1949), he treated both *butleri* and *brachystoma* as subspecies of *radix* on the basis of presumed intergradation between *radix* and *butleri*. Conant (1950) reviewed Smith's evidence and concluded that, although *radix*, *butleri*, and *brachystoma* may have been derived from the same stemstock, all are distinct species. Barton (1956) supported specific status for *butleri*.

• ETYMOLOGY. The specific name honors the naturalist Amos W. Butler of Brookville, Indiana who presented Cope with the type specimen.

COMMENT

Regarding the holotype, Ruthven (1904) wrote: "This specimen was thought to have come from Richmond, Indiana, but it was unlabeled when Mr. Butler received it from Purdue University, so it may or may not have come from there." The holotype evidently was lost soon after its description, for Ruthven was unable to locate it in the Purdue collection. A specimen of *butleri* collected near Richmond, Indiana is in the Joseph Moore Museum of Earlham College.

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